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NUCLEAR MAGNETIC RESONANCE SPECTROMETER(U) RICHMOND
UNIV ANN ARBOR DEPT OF CHEMICAL ENGINEERING
F H DONAHUE 1987 AFOSR-TR-88-8573 AFOSR-86-8231

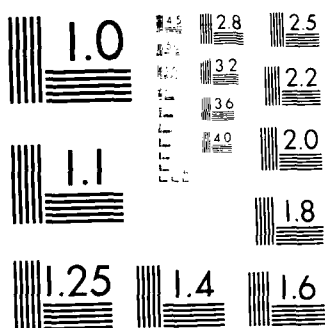
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

REPORT DOCUMENTATION PAGE

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The major purpose of the spectrometer was to support research on low temperature molten salts. Specifically, to be used in the determination of the composition of the salt solutions (^1H and ^{13}C) and as a probe in the determination of the nature of complexation of metal complexes. In the case of the latter, the instrument was used to probe the nature of octahedral cationic complexes of aluminum and gallium in the melts (the first such observations). Some of the aluminum work has been in support of our work at the University of Michigan and some of the aluminum and all of the gallium work is collaboration with the F. J. Seiler Research Laboratory (AFSC) at the Air Force Academy. **KEYWORDS:** MILITARY PROCUREMENT, PROCUREMENT DOCUMENT.

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FINAL REPORT

AFOSR-TR- 88 - 0573

TITLE: Nuclear Magnetic Resonance Spectrometer

PRINCIPAL INVESTIGATOR: Professor Francis M. Donahue
Department of Chemical Engineering
University of Michigan
Ann Arbor, MI 48109-2136

INCLUSIVE DATES: 15 July 1986 - 15 July 1987

GRANT NUMBER: AFOSR-86-0231

COSTS AND FY SOURCE: \$ 141,240 (University cost-sharing: \$ 35,310) / FY87

SENIOR & JUNIOR RESEARCH PERSONNEL: N/A

PUBLICATIONS:
NONE (Two are in preparation)

ABSTRACT OF OBJECTIVES AND ACCOMPLISHMENTS:

The major purpose of the spectrometer was to support research on low temperature molten salts. Specifically, to be used in the determination of the composition of the salt solutions (^1H and ^{13}C) and as a probe in the determination of the nature of complexation of metal complexes. In the case of the latter, the instrument was used to probe the nature of octahedral cationic complexes of aluminum and gallium in the melts (the first such observations). Some of the aluminum work has been in support of our work at the University of Michigan and some of the aluminum and all of the gallium work is collaboration with the F. J. Seiler Research Laboratory (AFSC) at the Air Force Academy.

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